

# Central National Technology Support Center

## FY 07 Summary Report

## November 2007

### Director's Message

At the Central National Technology Support Center (CNTSC), we are privileged to be a part of the technology support infrastructure for the agency. We completed 463 requests for direct technical assistance/support during Fiscal Year (FY) 2007.

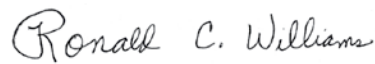
Our CNTSC specialists are committed to providing national leadership for a number of key science and technology areas. You will see some of these areas highlighted in this report.

During FY 2007, we developed a keener ability to focus on our functions, which serve as the framework for decision making. The functions of the NTSCs are to:

- Provide direct technical support to States and the Caribbean and Pacific Basin Areas;
- Acquire and develop new science and technology;
- Develop and maintain national technical standards, references, and related procedures;
- Build partnerships and collaborate to provide training; and
- Support national activities.

In supporting the States, we are committed to ensuring that we provide you with high quality technical support and assistance that is relevant to meeting your needs.

Thank you for your continuous support of the CNTSC. We appreciate the opportunity to assist you.



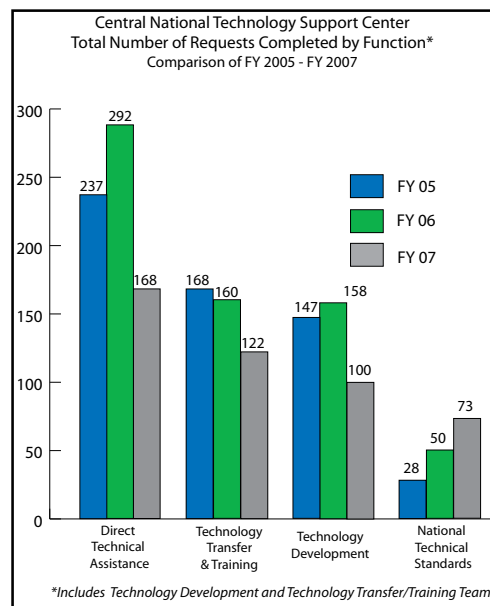
RONALD C. WILLIAMS  
Director

Ron Williams, Director

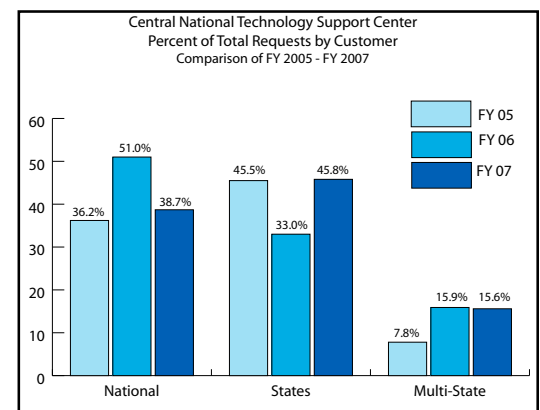
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People Help  
the Land



Graphic 1.1 - Comparison of Total Number of Requests Completed by Function for FY 2005-2007



Graphic 1.2 - Comparison of Total Requests by Customer for FY 2005-2007

# *Technology Transfer & Assistance Team*

## *Team Highlights for FY 07*

Technology Transfer & Assistance Team members provided high quality assistance during the CNTSC's third year. Some highlights from Team activities in FY 07 are:

- The CNTSC & NCGC co-hosted two technical exchange meetings and a field tour for a group from Mexico and the U.S. with special interest in sharing resource management technology and expertise. Their overall goal is to use a network of universities, technical professionals, non-governmental organizations, and industry to recover the productivity potential of the Northern Mexico landscape.
- Strengthened partnership with U.S. Fish and Wildlife Service (FWS) with a Memorandum of Understanding (MOU) to establish and maintain cooperation between the agencies in efforts to proactively conserve federally-listed and at-risk species. FWS and NRCS held a workshop to share information on innovative approaches to Endangered Species Act (ESA) compliance and to identify ways to coordinate and/or improve efficiency.
- Provided staff support for the 3rd National Grazing Lands Conference in St. Louis, Missouri. More than 900 attendees participated in a variety of concurrent sessions, workshops, trade show exhibits, and regional meetings.
- CNTSC specialists, Joel Douglas, Jerry Lemunyon, and Bill Kuenstler worked with Plant Materials Centers in Texas and Missouri and Mississippi State University to investigate the effects of switchgrass harvesting time on biomass yield and biofuel quality. The results of this cooperative research will provide information on the acceptance of new species for biofuel consideration and refine agronomic management technologies for further advancement of switchgrass and other grasses as a biofuel crop.
- Mike Sporcic, CNTSC wind erosion specialist, worked with the USDA Agricultural Research Service (ARS) to revise the Wind Erosion Prediction System (WEPS) model, which has many new report functions and an improved interface format. WEPS is expected to be released for use in 2008.
- CNTSC biologists, Romy Myszkowski and Steve Brady, actively participated in a national effort to improve habitat assessment protocol for the Conservation Security Program (CSP). In an attempt to improve consistency, a draft habitat assessment protocol was field tested in selected States across all three regions.
- Darren Hickman, former CNTSC environmental engineer, and Bill Kuenstler, CNTSC conservation agronomist, assisted with a three-day Comprehensive Nutrient Management Plan (CNMP) Development Course designed to train individuals in the development of CNMPs. Completion of the course will fulfill the Technical Service Provider CNMP certification requirement for "a training course that meets all of the general requirements for all CNMP certified specialist categories as well as the specific requirements for each element."
- Arnold Norman, CNTSC rangeland management specialist, worked with USDA-ARS to develop a Drought Management Calculator (DMC), a decision support tool designed to help producers minimize financial loss and insure long-term resource sustainability during drought years. The Calculator helps producers evaluate carrying capacity, analyze current and future drought conditions, access web to update market, rainfall, and drought information.
- Tony G. Funderburk, CNTSC agricultural engineer, was actively involved in the release of WinPond 2006, a computer program for the field application of pond designs. Tony delivered two onsite WinPond workshops in Louisiana and Alabama and four live net-conference WinPond workshops with 75 participants.

# *Wetland Team*

Wetland Team (l to r): Norman Melvin, Team Leader, Rich Weber, wetland hydraulic engineer, and Lee Davis, wetland biologist.

# *Grazing Lands Team*

Grazing Lands Team (l to r): Homer Sanchez, rangeland management specialist, George Peacock, Team Leader, and Dr. Kenneth Spaeth, rangeland management specialist.

## FY 07 Wetland Team activities highlights:

### Wetland Restoration & Enhancement activities:

- Richard Weber, Wetland Team Hydraulic Engineer, led the team that revised Chapter 13, Engineering Field Handbook, Wetland Restoration, Enhancement, or Creation, currently in Draft format. Vegetation design and guides to selecting revegetation methods have also been redesigned.
- Wetland Restoration & Enhancement training in Hastings, NE, included equal participation by NRCS, FWS, and State agencies. A formal agreement with FWS is being developed to share enrollment, instructors, and funding for future courses.
- Norman Melvin, Wetland Team Leader, developed Tech Note 190-72, "Noxious, Invasive, and Alien Plant Species: A challenge in Wetland Restoration & Enhancement." The note defines different categories of problem plant species and outlines agency policy on problem species.

### Wetland Identification & Delineation:

- Lee Davis, Wetland Team Biologist, is leading efforts to develop a Corps of Engineers (COE) Reg. IV equivalency course addressing the Swampbuster provisions of the Food Security Act, specifically for NRCS field staff.
- Released Tech Note 190.B.73 "Identification of Plant Species' Trinomials with Varying Wetland Indicator Status Designations: Northeast Region."
- Formally transferred maintenance of the Wetland Plant List from the FWS to the COE through an interagency MOU.

### Wetland Functional Assessment:

- Lee Davis, Wetland Team Biologist, led multiple workshops in four states, on developing State-level, rapid functional assessment models for minimal effect determinations, wetland impacts, and wetland restoration/mitigation.

## FY 07 Grazing Lands Team activities highlights:

- Revised Chapter 4 of the National Range and Pasture Handbook to reflect changes implemented in the interagency publication, Interpreting Indicators of Rangeland Health, Version 4.
- Designed, programmed, and released a module in the Ecological Site Information System (ESIS) for the entry, editing, storage and retrieval of Ecological Reference Sheets associated with making rangeland health assessments.
- Assisted the Resource Inventory and Assessment Division (RIAD) in designing and implementing a pastureland National Resources Inventory (NRI) pilot study that is being conducted in five States. Evaluations of the study will be conducted to refine field protocols and implementation of an agency pastureland NRI study.
- Provided co-leadership with RIAD in formation of a NRI Rangeland Data Analysis Team. The Team's purpose is to provide leadership on analysis issues relating to the new NRI rangeland study.
- Revised the Ecological Site Description (ESD) component of ESIS to accommodate changes in the plant community section of ecological site description. The update is scheduled for release in early FY 08.
- Designed and programmed a Forage Suitability Group Description (FSGD) component of ESIS. The FSGD component is scheduled for release in early FY 08.
- Conducted a Riparian State and Transition Modeling Workshop with ARS, universities, and NRCS personnel to develop a methodology for describing riparian models.
- Assisted with two Mexico/USDA-NRCS Technology Exchange workshops held in Texas. Made presentation in Mexico on NRCS technical assistance delivery system.

# Wildlife Team

FY 07 Wildlife Team activities highlights:

- Completed seven Wildlife Habitat Council/NRCS fish and wildlife habitat management leaflets:
  - Sharp-tailed grouse
  - Early successional habitat
  - Scrub-shrub birds
  - Riparian systems
  - Freshwater mussels
  - Temporarily flooded wetlands
  - Cutthroat trout



*Cutthroat Trout*

Completed five Wildlife Management Notes:

- Grassland bird and snake use of grassed waterways is influenced by site and landscape characteristics.
- Breeding bird use of Minnesota filter strips in relation to width, planting mixture, and surrounding land use.
- Grassland bird use of Iowa Filter strips in relation to width, planting mixture, and presence of woody plants.
- Breeding bird, invertebrate, and plant responses to USDA Farmable Wetland Program Restorations in Iowa and South Dakota.
- Songbird, plant, and arthropod responses to burning and disking of floodplain conservation easements in East-central Iowa.

Completed three Technical Notes:

- Grassland bird and snake use of grassed waterways is influenced by site and landscape characteristics.
- Breeding bird use of Minnesota filter strips in relation to width, planting mixture, and surrounding land use.
- Grassland bird use of Iowa Filter strips in relation to width, planting mixture, and presence of woody plants.

- Fish & Wildlife database design.
- Assisted the Agricultural Wildlife Conservation Center (AWCC) with grant applications and ranking.

## *Brady Selected as New Wildlife Team Leader at the CNTSC*

Steve Brady was selected as the new Wildlife Technology Development Team Leader, effective September 30, 2007. In his new assignment as Wildlife Technology Development Team Leader, Steve will provide leadership in wildlife technology development, acquisition, and maintenance agency-wide.

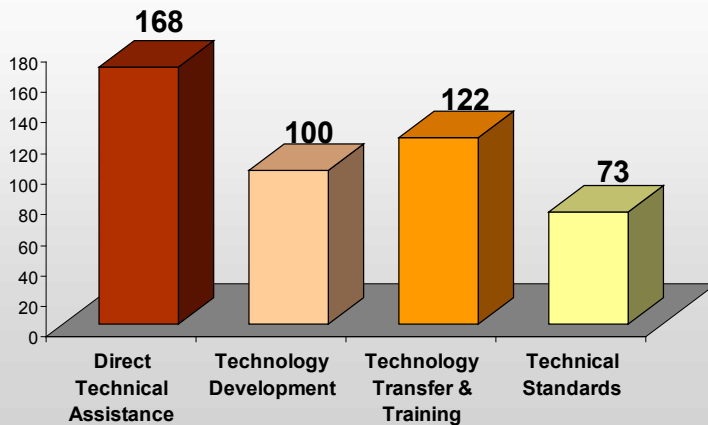
Steve has 30 years of experience with NRCS. He was previously a wildlife biologist on the Technology Transfer/Assistance Team at the CNTSC, a position he has held since 2004. Steve has served in numerous positions within the agency in his career including biologist with the Natural Resources Inventory and Analysis Institute (1995-2004); biologist with the NRI Division (1994-95); wildlife biologist with the Information Resources Management Division (1992-94); wildlife biologist with the Ecological Sciences Division (1987-1991); state biologist in Illinois (1979-87); wildlife biologist in Wisconsin (1978-79), and District Conservationist in Illinois (1975-78). He brings a broad range of experience from working in three field offices, two States, four NHQ Divisions, and the CNTSC during his career.

Steve is well known and respected both within and outside of the agency. He earned a B.S. degree in Zoology from Western Illinois University (1969) and a M.S. degree in Zoology from Western Illinois University (1975).



*Steve Brady, Wildlife Team Leader*

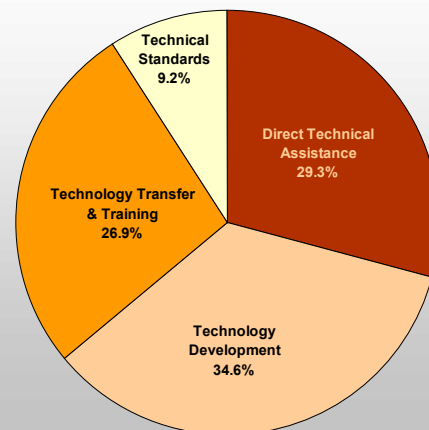
## FY 2007 Requests Completed by Function Central National Technology Support Center



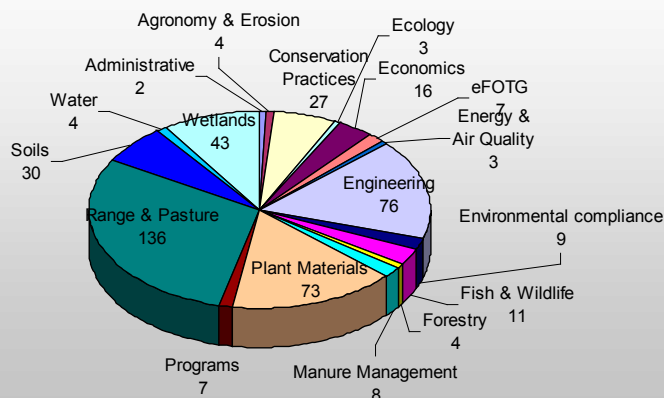
Graphic 5.1 - FY 2007 Requests Completed by Functions

Graphic 5.2 - FY 2007 Percent of Time by Functions

## FY07 Percent of Time by Function Central National Technology Support Center



## FY07 Number of Requests by Subject Central National Technology Support Center



Graphic 5.3 - FY 2007 Number of Requests by Subject

# ***FY 07 Personnel News***

## ***CNTSC Receives Two Chiefs' Partnership Award***

The Central National Technology Support Center was one of the first recipients of the Two Chiefs' Partnership Award presented by Forest Service Chief Dale Bosworth and NRCS Chief Arlen Lancaster. The Award is designed to highlight successful conservation and forest stewardship collaboration. The CNTSC was recognized for its support of the Southeastern Silvopastoral Initiative, which identified barriers to implementation, and developed the technology transfer program targeted principally for the Southeast. Jim Robinson's, CNTSC Forester (retired), technical guidance and support was instrumental in the success of this initiative.

## ***59th Secretary's Honor Awards***

CNTSC specialists William "Bill" Kuenstler, Jerry Lemunyon, and Jerry Walker received USDA's most prestigious award from Agriculture Secretary Mike Johanns as members of the Energy Estimator team for "designing and developing three web-based energy estimators in response to a need for information on energy-saving agricultural activities.

*Left to Right - Jerry Walker, Bill Kuenstler, and Jerry Lemunyon.*

## ***Lemunyon Joins CNTSC Team***

Dr. Jerrell "Jerry" Lemunyon, conservation agronomist, transferred to the CNTSC Technology Transfer/Assistance Team from the NRCS Resource Inventory and Assessment Division (RIAD) effective April 15, 2007.

*Dr. Jerry Lemunyon*

## ***Douglas Receives National Award***

Joel Douglas, CNTSC Plant Materials Specialist, received the Plant Materials Meritorious Service Award for 2006. Joel has served with the National Plant Materials Technical Committee since its inception and was very instrumental in choosing the statistics software and coordinating statistics training for the Program.

*Joel Douglas*

## ***Hickman Selected for National Position***

Congratulations to Darren Hickman, former CNTSC environmental engineer, who was selected as the NRCS National Environmental Engineer on Conservation Engineering Division, in Washington, DC, effective August 19, 2007.

*Darren Hickman*

## ***Four CNTSC Specialists Retired December 29, 2006***

On December 29, 2006, more than 130 years of experience walked out the CNTSC doors when Dan Caudle, Glenn Lawson, Jim Robinson and Billy Teels retired.

*Left to Right - Billy Teels, Glen Lawson, Dan Caudle and Jim Robinson.*

*Helping  
People  
Help the  
Land*

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